

**Work Order ID 61867**

Wednesday, September 08, 2010 1:00:01 PM

Page 1

Item ID: D2580-1

Accept

Revision ID:

Item Name: 205 Skidtube bent detail

Setup Start

Stop

Start Date: 9/8/2010 Start Qty: 2.00

Required Date: 9/13/2010 Req'd Qty: 2.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: PADate: 10-9-08

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D2580

Rev D

100

0.00



HandFinish

Memo

0.00

Hand Finishing

1- Inspect mat'l D2500-1-190 for damage.

2- Chemical Conversion Coat as per QSI 005 4.1

10-9-8

②

101

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2 - BE 10-09-14

# Work Order ID 61867

Wednesday, September 08, 2010 1:00:01 PM



Page 2

Item ID: D2580-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 205 Skidtube bent detail

Start Date: 9/8/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/13/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Drill pilot holes using drill jig DT 8149 (Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2580 without cutting fluid

3-Deburr and blow out all chips from inside of tube

4-Bond web in place per QSI 015.

□□

A/R Sikaflex-291 batch: 445114 □□□

Sikaflex expire date: 11/01/30

Start time and date: 3:00/10/09/13 Bond for 12hrs

BB 10/09/13

BB 10/09/13

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Quality Control

Memo

0.00

8101014

②

**Work Order ID 61867**

Page 3

Wednesday, September 08, 2010 1:00:01 PM

Item ID: D2580-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 205 Skidtube bent detail

Start Date: 9/8/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/13/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

140

Identify as per dwg & Stock Location: 46

0.00



Packaging

Memo

0.00

Packaging

DP 10-9-14 (2)

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/09/15 JF

ME

10-9-15

# Picklist Print

Wednesday, September 08, 2010 1:00:37 PM

Page 1

Work Order ID: 61867

Parent Item: D2580-1

Parent Item Name: 205 Skidtube bent detail

Start Date: 9/8/2010

Required Date: 9/13/2010

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP B01.11.08 Revised Step 9, 10, 12, and 13 SM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D2500-1-190

Manufactured

No

Each

100.0000

1

2



Ext'n -T Beam Tube 4"

Location

Loc Qty

Loc Code

LG

100

52319

27

58427

73

*DP 10-9-8 (2)*

D2596

Manufactured

No

110

Each

6.0000

1

2



Web, 205 Skidtube

Location

Loc Qty

Loc Code

LG46

6

61638

6

X

X

*2 BB 10/09/13*

**DART**

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

**RELEASED**  
07-06-28 *[Signature]*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

SHOP COPY  
RETURN TO  
ENGINEERING  
CONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *61867*

*2810-9-00*

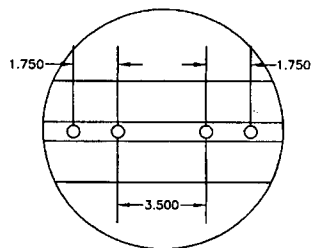
**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
SEE NOTES ON  
PAGE 2 FOR D2580-041 AND  
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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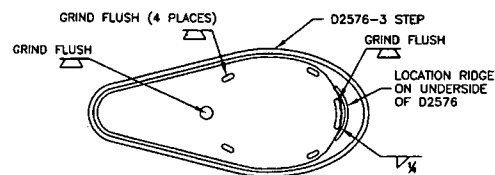
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**DETAIL A**  
SCALE 5:24

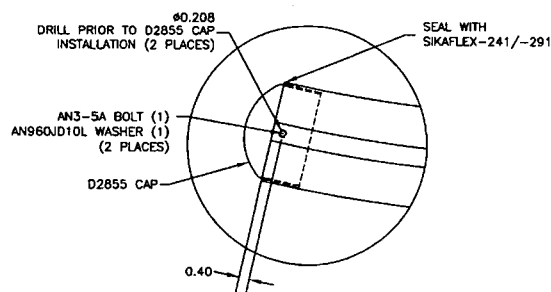


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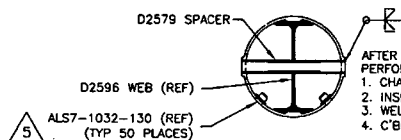
**DETAIL B**  
SCALE 5:24



**DETAIL C**  
SCALE 5:24



**SECTION D-D**  
SCALE 5:24

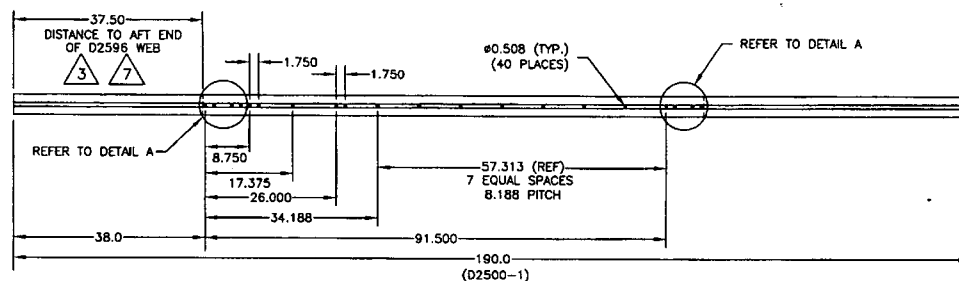


- AFTER DRILLING AND BENDING ASSEMBLY  
 PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:  
 1. CHAMFER HOLE 0.050 X 45°  
 2. INSERT D2579 SPACER (20 PLACES)  
 3. WELD INTO PLACE AND GRIND FLUSH  
 4. C-BORE .02579 SPACER TO Ø0.437 X 1.00 DEEP

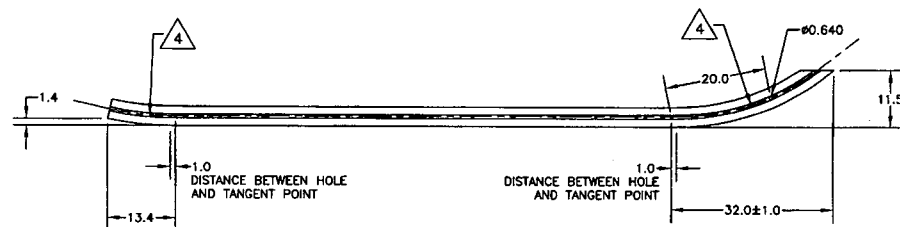
**D2580-041 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

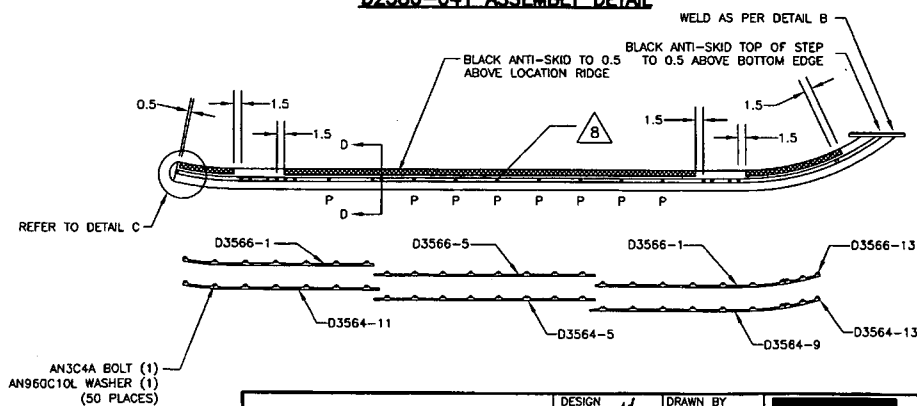
D2580-1 DRILLING DETAIL



D2580-1 BENDING AND CUTTING DETAIL



D2580-041 ASSEMBLY DETAIL



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DATE \_\_\_\_\_

07.02.27

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APPROVED

**PART**

**DART AEROSPACE LTD.**  
HAMKESBURY, ONTARIO, CANADA

DRAWING NO.	
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D2580

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## 205 SKIDTUBE ASSEMBLY

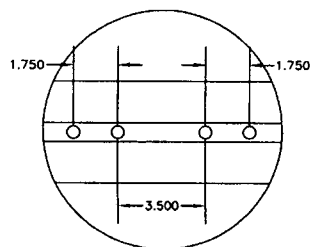
REV. 0

SHEET 2 OF 3

SCALE

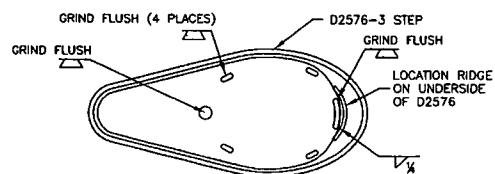
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**DETAIL E**  
SCALE 5:24

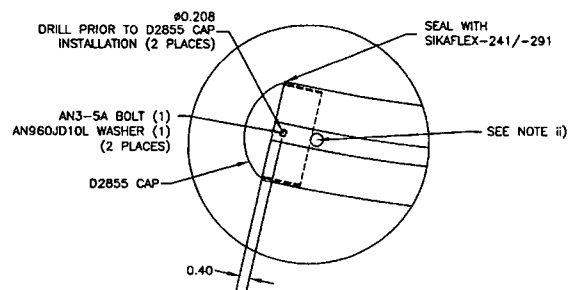


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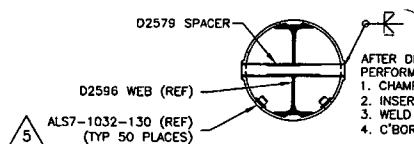
**DETAIL F**  
SCALE 5:24



**DETAIL G**  
SCALE 5:24



**SECTION H-H**  
SCALE 5:24

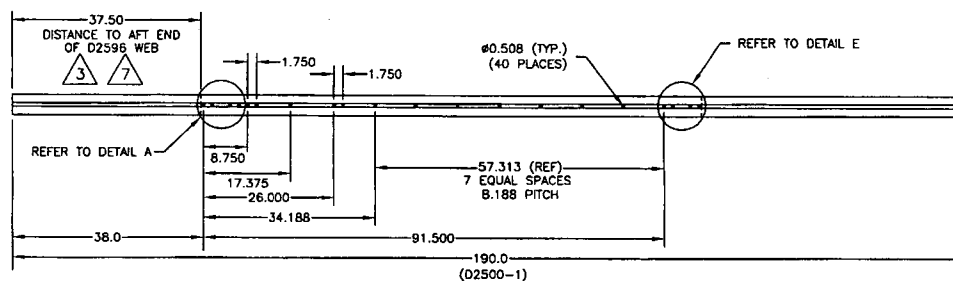


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  2. INSERT D2579 SPACER (20 PLACES)
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  4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

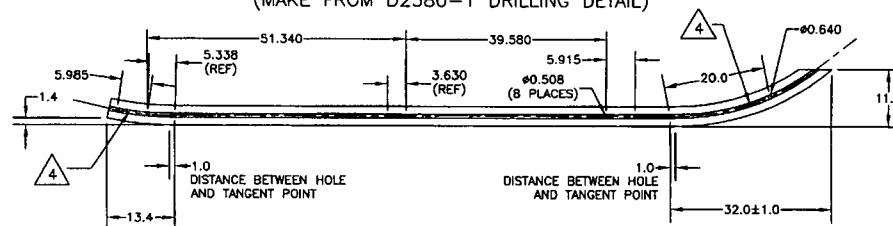
**D2580-045 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

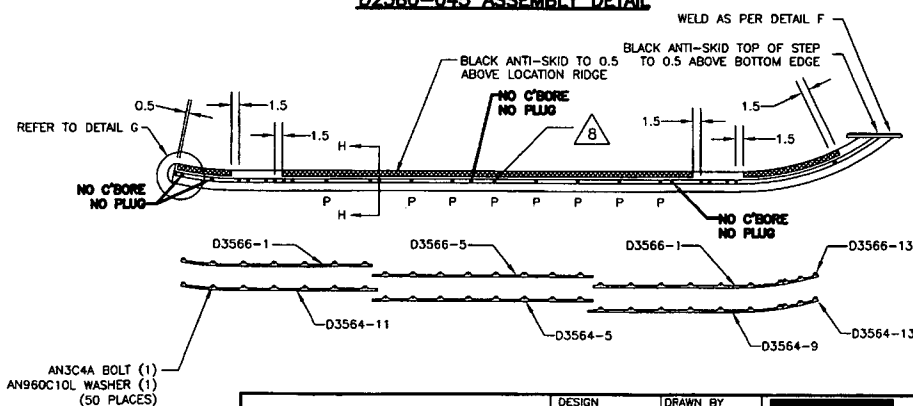
D2580-1 DRILLING DETAIL



**D2580-5 BENDING AND CUTTING DETAIL**  
(MAKE FROM D2580-1 DRILLING DETAIL)



**D2580-045 ASSEMBLY DETAIL**



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**DART**

**DART AEROSPACE LTD.**  
HAMPSHIRE, ONTARIO, CANADA

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D2580

DATE
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205 SKIDTUBE ASSEMBLY

REV. D

SHEET 3 OF 3

SCALE

June